

### REMARKS

The foregoing amendments and the present remarks are responsive to the Office Action mailed on 08/20/03. Claim 15 has been amended to correct an informality. Claim 14 has been amended to overcome a rejection under 35 U.S.C. §102(b). Support for the amendment to claim 14 can be found, inter alia, in Applicants' specification and original claim 14.

Claims 14-28, and 45-53 are pending in this application. Claims 1-13 and claims 29-43 have been previously cancelled without prejudice in response to a restriction requirement. By the foregoing amendments and the following remarks, pending claims 14-28 and 45-53 are now believed to be in condition for allowance and are presented for examination.

#### Discussion of the Office Action

In the Office Action of 03/12/03, the Examiner objected to claim 15 due to an informality. The Examiner rejected claim 14 under 35 U.S.C. §102(b) as anticipated by Smith et al. 98/XthE10.

#### Discussion of the Objection to claim 15

The objection to claim 15 has been overcome by the amendment thereto.

#### Discussion of the rejection of claim 14 under 35 U.S.C. §102(b)

As set forth above, claim 14 stands rejected under 35 U.S.C. §102(b) as being anticipated by Smith et al. 98/XthE10. The Examiner states that Smith et al.

disclose a material system of claim 1. Specifically, the Examiner asserts that the reference with regard to claim 1 “states a method comprising: directing an energy beam (page 3 laser annealing) at a pre-processed composite material (samples Z1, Z2 or Z3; page 2 line 2) having a matrix containing a plurality of nanocrystals and a plurality of traps (page 2 line 18) to reduce the size of the plurality of nanocrystals and the number of plurality of traps (page 3 lines 1-10) to produce a post-processes composite material.” Applicants respectfully traverse the rejection.

Under §MPEP 706.02, it is well established that for a reference to support a rejection under 35 USC §102, “that reference [must teach every aspect] of the claimed invention.”

Applicants’ amended claim 14 is as follows:

A material system comprising:

an energy beam,

a pre-processed composite material having a matrix containing a plurality of nanocrystals and a plurality of traps arranged to receive said energy beam; and

wherein said received energy beam reduces the size of said plurality of nanocrystals and the number of the plurality of traps to produce a post-processed material.

Applicants’ respectfully submit that **Smith et al. does not disclose nor suggest** the claimed reduction of the size of the plurality of the nanocrystals as

shown by the above underlined bolded portion of Applicants amended claim **14**. The Examiner points to page 3, lines 1-10 of Smith et al. as evidencing the nanocrystal reduction as claimed by Applicants. That referenced section describes eliminating traps, eliminating deep trap states and producing a dramatic increase in the intensity of the photoluminescence from trap states but does not disclose nor suggest that the directed energy beam reduces the size of the plurality of nanocrystals; i.e., it does not teach every aspect of the invention as mandated under §MPEP 706.02.

Accordingly, Applicants respectfully submit, that the rejection of claim **14** under 35 U.S.C. §102(b), is improper and should be removed.

**ALLOWABLE SUBJECT MATTER**


The Examiner states that claims **15-28** and **45-53** are allowed.

### CONCLUSION

The undersigned respectfully submits that, in view of Applicants' amendments and arguments, the rejections of the claims raised in the Office Action dated March 12, 2003 have been fully addressed and overcome, and the present application is believed to be in condition for allowance. It is respectfully requested that this application be reconsidered, that claims **14-28**, and **45-53** be allowed, and that this case be passed to issue. In the event that the Examiner finds any remaining impediment to the prompt allowance of these claims that can be clarified with a telephone conference, he is respectfully requested to initiate the same with the undersigned at (925) 422-3682.

Respectfully submitted,

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